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Before the

FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of	)	
	)	
Federal-State Joint Board on Universal Service	)	CC Docket No. 96-45
	)	
	)	
Forward-Looking Mechanism for High Cost Support for Non-Rural LECs	)	CC Docket No. 97-160

COMMENTS OF WORLDCOM, INC.

WorldCom hereby submits its Comments on Section III.C.1. of the Commission's Further Notice of Proposed Rule Making (FNPRM) released on July 18, 1997, in the above captioned proceeding.

In this second of four rounds of comments on cost models, the Commission asks parties to address how best to determine the location of customers and how to reconcile the number of lines any model predicts for each wire center with the actual number served by that wire center. WorldCom offers these comments now even though the Commission has scheduled at least two more workshops on this issue tomorrow. We will file comments on the additional workshops with our reply comments in this round. Those comments are due September 10, 1997.

The Commission asks if it should use a geographic area smaller than a wire center to calculate the cost of supported services.[1] WorldCom supports the Commission's efforts to gather input data on a census block or grid basis, but strongly feels the cost calculation and support should be aggregated on a wire center basis.

[1] Further Notice of Proposed Rulemaking, CC Dockets No 96-45 and 97-100, Released July 18, 1997, at ¶ 40 (FNPRM).

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The industry today creates most of its network design and operations around wire centers. Customer accounts and many operating support systems key on telephone numbers which, even in an era of number portability, are associated with a serving wire center. And, most local rate systems use wire centers to designate local calling areas. Local carriers would have to develop and maintain additional, as yet, undefined records in order to identify the number of customers actually served in sub-wire center geographic areas. Finally, the question at hand is how to calculate support for a broad group carriers serving relatively high-cost areas. Wire centers provide a convenient, but manageable, level of deaveraging that also reflects local exchange carrier ownership patterns – that is, local carriers ownership is defined by exchange areas or wire centers, not by smaller geographic units.

Further, if the universal service cost model also is used to define the cost of unbundled network elements, and if it developed costs on a sub-wire center basis, new entrants would have no way of knowing either independently of or in advance of asking the incumbent the cost of any unbundled element. This uncertainty would leave an unwelcome opportunity for incumbents to insist they must do an engineering survey of the actual layout of a network element before they could tell new entrants the price of the element. A least several incumbents already are proposing excessive non-recurring charges to "design" the provision standard loops. Such sub-wire center pricing would greatly complicate entry and would give the incumbents yet one more way to discourage entry.

At the same time, gathering modeling input at the census block level helps resolve several problems with the existing models. As BCPM proponents demonstrated last week,[2] by using census block data they are able to very closely match census blocks to actual wire center boundaries; thus, substantially mitigating earlier problems caused by using census block groups where the number of customers predicted in a

[2] INDETEC International Ex Parte presentation on behalf of itself, BellSouth, Sprint and US West, August 27, 1997.

wire center frequently was quite dissimilar from reality. Finally, use of census blocks rather than census block groups increases the number of input data points from about 220,000 to 7.5 million. This significantly reduces the "lumpiness" of the data and more accurately describes the actual location of households; thus, reducing the need for modeling devices such as Hatfield's "window pane" and other clustering algorithms. And, census data at the census block level can shed useful light on the types of dwelling units and the number of households without telephone service.

WorldCom believes the "enhanced customer location" capabilities promised in the yet to be released version of BCPM represents a very useful advance in the art of universal service cost modeling. We are eager to see the variations to be offered by Hatfield proponents and Commission staff later this week.

The Commission seeks information on techniques to map census blocks to wire centers and asks whether such a process would enhance its ability to model deployment of advanced technologies such as ADSL and HDSL.[3] BCPM proponents have demonstrated that commercial mapping capabilities exist to match census blocks to wire centers. WorldCom expects Hatfield and staff will discuss similar processes in the workshops tomorrow. We already have agreed that using census blocks should improve the accuracy of any model.

The second part of the question raises again an issue that WorldCom has raised repeatedly.[4] WorldCom strongly believes the Commission must specify a loop design standard in order to assure universal service supports access to advanced technologies at the minimum cost necessary to achieve a specified technical level. Although not designed for this purpose, the BCPM presentation last week clearly demonstrates the impact of choosing one technical standard over another – or even worse, the impact of not specifying any standard. BCPM overlays its assignment of

[3] FNPRM at ¶ 46.
[4] WorldCom Ex Parte on Universal Service Cost Models – CC Docket 96-45, June 6, 1997.

census blocks to wire centers with a grid intended to mimic a carrier serving area (CSA) loop design. Thus, they produced a rectangular grid with maximum dimensions of about 12,000 feet by 14,000 feet. Using rectangular coordinates, this would produce a maximum copper loop shorter than 13,000 feet (about 12,000 feet or the CSA maximum using both 26 and 24 gauge copper). They provided several examples including one that indicated the actual number of households that would fall in each grid area using the new BCPM methodology. In one grid there were two households; the average across ten populated grids was eight households per grid; eight partial grids had no households. The BCPM model would place a DLC remote in each populated grid.

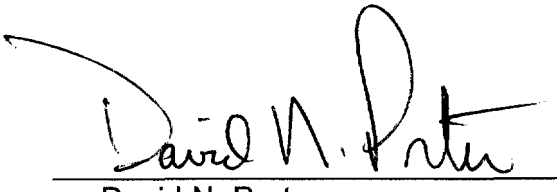
If instead of using the CSA standard, BCPM used the RRD standard, the maximum copper loop length would increase to 18,000 feet –grid areas would double to about 16,000 feet by 20,000 feet – and the number of DLC base units would be cut in half. This reduction would significantly reduce the cost of rural loops while still providing 1.54 mbps digital service. This service standard exceeds the standard established by Congress that rural carriers must meet in order to borrow from RUS. This standard should be adopted as the universal service standard. WorldCom also suggests the Commission ask RUS for its experience in providing advanced services in rural areas. RUS has accepted "state telecommunications modernization plans" from nearly 40 states. These plans may identify alternatives to DLC that might more economically provide advanced services in rural areas.

As the BCPM advocates pointed out, the process of matching census blocks to wire centers and of adding the grid overlay requires significant effort. BCPM is assuming the CSA network standard. In order to develop outputs in a timely manner, the Commission needs now either to adopt the CSA standard or, preferably, to direct BCPM to use the RRD standard.

Finally, the Commission asks how best to assure that the number of lines modeled for each wire center matches the actual number of lines served by that wire center. The Commission already has asked incumbents to provide customer counts by wire center. While that request may not have captured sufficient data about business customers – for example, separating PBX trunks, Centrex lines and special access lines from multiline business data – it will allow a wire center-by-wire center true up rather than a single study-area wide adjustment. And, use of census blocks will help identify under served areas. The biggest problem still seems to be how best to locate business customers. Data apparently exists to map business establishments into the BCPM grid, but we still need to determine how to assign a number of lines per establishment. Obviously, the number will vary depending, in part, on the size and type of business. It also will vary depending on the type of service chosen by the customer. Since you can get the number of employees and SIC for each business, perhaps someone could develop an algorithm to determine lines based on these two characteristics. WorldCom believes only the incumbents have data sufficient to develop such an algorithm.

WorldCom appreciates the opportunity to provide these comments and intends to participate in future Commission workshops and proceedings.

Respectfully submitted,



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